

We claim:

1. A medical valve comprising:

a housing defining a passageway, the passageway having an inlet section and an outlet  
5 section;

a plug member movably mounted within the passageway; and

a substantially flexible, resilient gland member secured to the housing and the plug  
member, the plug member being supported within the passageway by the gland member.

10 2. The valve as defined by claim 1 wherein the plug member defines a channel for directing  
fluid through the valve.

3. The valve as defined by claim 1 wherein the plug member is a cannula.

15 4. The valve as defined by claim 1 wherein the plug member is movable between a closed  
mode that prevents fluid flow through the valve, and an open mode that permits fluid flow  
through the valve.

20 5. The valve as defined by claim 4 wherein the plug member prevents fluid flow through the  
valve when the valve is in the closed mode.

6. The valve as defined by claim 4 wherein the plug member occludes the passageway when  
the valve is in the closed mode.

25 7. The valve as defined by claim 4 wherein the plug member provides at least a portion of  
an unoccluded fluid path through the valve when the valve is in the open mode.

8. The valve as defined by claim 1 wherein the gland has a seal section, further wherein the inlet section of the housing has an exterior inlet face, the seal section being substantially aligned with the exterior inlet face when the valve is closed to provide a swabbable surface.

5 9. The valve as defined by claim 1 wherein the passageway includes:  
an inlet;  
a first section that converges from the inlet section;  
a second section that diverges from the first section; and  
a third section that diverges from the second section.

10 10. The valve as defined by claim 1 wherein the plug member is substantially rigid.

11. The valve as defined by claim 1 wherein the plug member has a longitudinal axis that is substantially parallel with the direction of motion of the plug member.

15 12. The valve as defined by claim 1 wherein the plug member is at least partially within the plug member.

13. A medical valve comprising:  
20 a housing defining a passageway, the passageway having an inlet section and an outlet section;  
a plug member movably mounted within the passageway; and  
a substantially flexible, resilient gland member secured about at least a portion of the plug member.

25 14. The medical valve as defined by claim 13 wherein the gland member supports the plug member within the passageway.

15. The medical valve as defined by claim 13 wherein the plug member is capable of telescopically moving relative to the gland member.

16. The valve as defined by claim 13 wherein the plug member defines a channel for directing fluid through the valve.

17. The valve as defined by claim 13 wherein the plug member is a cannula.

18. The valve as defined by claim 13 wherein the plug member is movable between a closed mode that prevents fluid flow through the valve, and an open mode that permits fluid flow through the valve.

19. The valve as defined by claim 18 wherein the plug member prevents fluid flow through the valve when the valve is in the closed mode.

20. The valve as defined by claim 18 wherein the plug member occludes the passageway when the valve is in the closed mode.

21. The valve as defined by claim 18 wherein the plug member provides at least a portion of an unoccluded fluid path through the valve when the valve is in the open mode.

22. The valve as defined by claim 13 wherein the plug member is substantially rigid.

23. The valve as defined by claim 13 wherein the plug member has a longitudinal axis that is substantially parallel with the direction of motion of the plug member.

24. The valve as defined by claim 13 wherein the gland member also is secured to the housing, the gland member supporting the plug member within the housing.

25. A medical valve having an open mode and a closed mode, the valve comprising:  
a housing defining a passageway;  
a plug member mounted within the passageway, the plug member having a first end and a  
second end, at least one of the first and second ends formed to substantially seal the passageway  
when in the closed mode; and  
a gland member disposed over at least one of the first and second ends of the plug  
member.

26. The valve as defined by claim 25 wherein the plug member is movable within the  
passageway between the closed mode and the open mode, at least one of the first and second  
ends of the plug member formed to enable liquid to pass through the passageway when in the  
open mode.

27. The valve as defined by claim 25 wherein the plug member defines a channel for  
directing fluid through the valve.

28. The valve as defined by claim 25 wherein the plug member is a cannula.

29. The valve as defined by claim 25 wherein the plug member prevents fluid flow through  
the valve when the valve is in the closed mode.

30. The valve as defined by claim 25 wherein the plug member occludes the passageway  
when the valve is in the closed mode.

31. A medical valve having an open mode and a closed mode, the valve comprising:  
a housing defining a passageway;  
means for plugging the passageway when the valve is in the closed mode, the plugging  
means being mounted within the passageway; and

means for supporting the plugging means within the passageway, the supporting means being substantially flexible.

5 32. The medical valve as defined by claim 31 wherein the plugging means includes a plug member.

33. The medical valve as defined by claim 31 wherein the plugging means includes means for occluding the passageway when the valve is in the closed mode.

10 34. The medical valve as defined by claim 31 wherein the plugging means includes means for channeling fluid through the passageway when the valve is in the open mode.

15 35. The medical valve as defined by claim 31 wherein the plugging means is movable to an open position when the valve is in the open mode, the plugging means not plugging the passageway when in the open position.

36. The medical valve as defined by claim 31 wherein the supporting means is positioned about at least a portion of the plugging means.